THE LUCITE® spectrum

VOLUME 6 • NUMBER 2 • 1968

Floor to ceiling with Lucite®

More and more often, sheet cast from LUCITE® acrylic monomer is being used in furniture and furnishings. Shown above are a cocktail table and hanging lamp, while other uses are chairs, room dividers, table lamps and a variety of ornamental embedments and sculptures.

The table shown here is only one of a broad line of tables and stands designed by Kenneth Brozen made by Robinson Lewis and Rubin, Brooklyn, New York, and marketed by Richards, Morgenthau Co., Inc., New York City.

The sparkling string sculpture lighting fixture of clear acrylic sheet wound with nylon monofilament is made by Auralume, Hackensack, N. J. Sheet for both lamp and table was cast from Du Pont LUCITE acrylic monomer by Cast Optics Corp., Hackensack, N. J.

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The purpose of THE LUCITE® SPECTRUM is to provide useful information on building construction products made with Du Pont LUCITE® acrylic plastic materials. This publication will be a medium through which ideas about these materials may be exchanged. Your comments and suggestions are invited. If you desire further information on any product mentioned in this issue, please write to: The Editor, THE LUCITE® SPECTRUM, Du Pont Company, 2420 Nemours Building, Wilmington, Delaware 19898.

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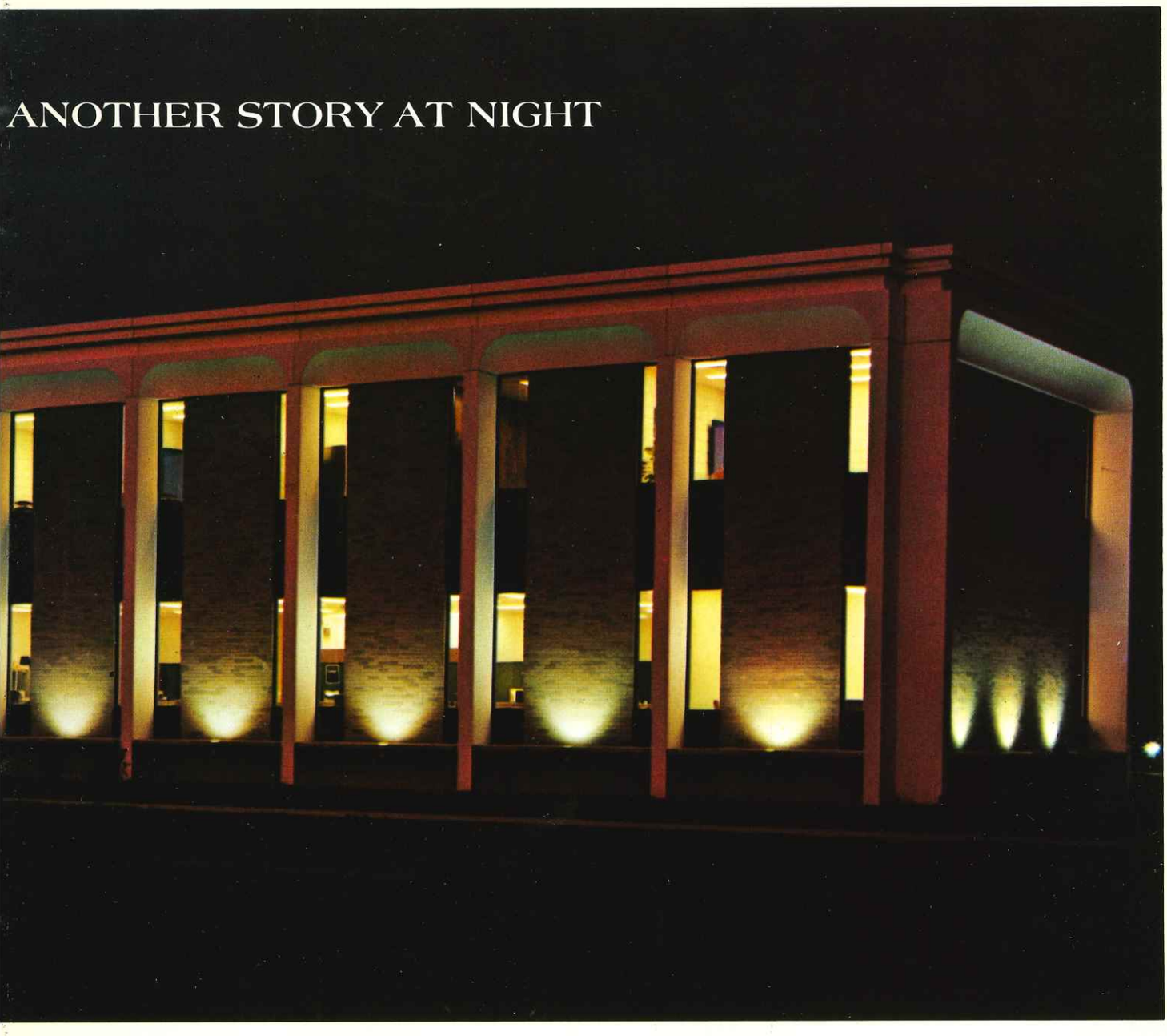
EDITOR: R. F. WELSH, JR. • ART DIRECTOR: R. L. DOWNES • PRODUCTION SUPERVISOR: J. C. RECORDS

The clean, classic lines of this new Instrument Products Building are unbroken by any external indication that it is two floors. But at night, it's another story, if you'll pardon the pun, when the interior lights clearly indicate the vertical division inside.

The spandrel panels and glazing are of tinted acrylic sheet cast from LUCITE® acrylic monomer by Cast Optics Corporation of Hackensack, New Jersey. The Evr•Kleer* sheet is the same color, 2370 transparent bronze, from top to bottom to

ANOTHER STORY AT NIGHT



reduce glare from the sun. This tint also screens inside activity from the viewer outside and adds continuity to the building lines by concealing the fact of two-story construction.

The glazing is set, with an elastomeric gasket, in aluminum channels with snap-in stops. For further details on installation of acrylic glazing write for our free booklet, Architectural Glazing with LUCITE acrylic plastic.

*Evr•Kleer trademark of Cast Optics Corporation, Hackensack, N.J.

Columbus discovers Micro-Matte*

To a businessman like Irving Schottenstein, a sign is more than a square board stuck in the air with some letters on it.

Mr. Schottenstein is a partner of Wyandotte Communities, Inc., which operates the "Patioshops," a community shopping center in Columbus, Ohio.

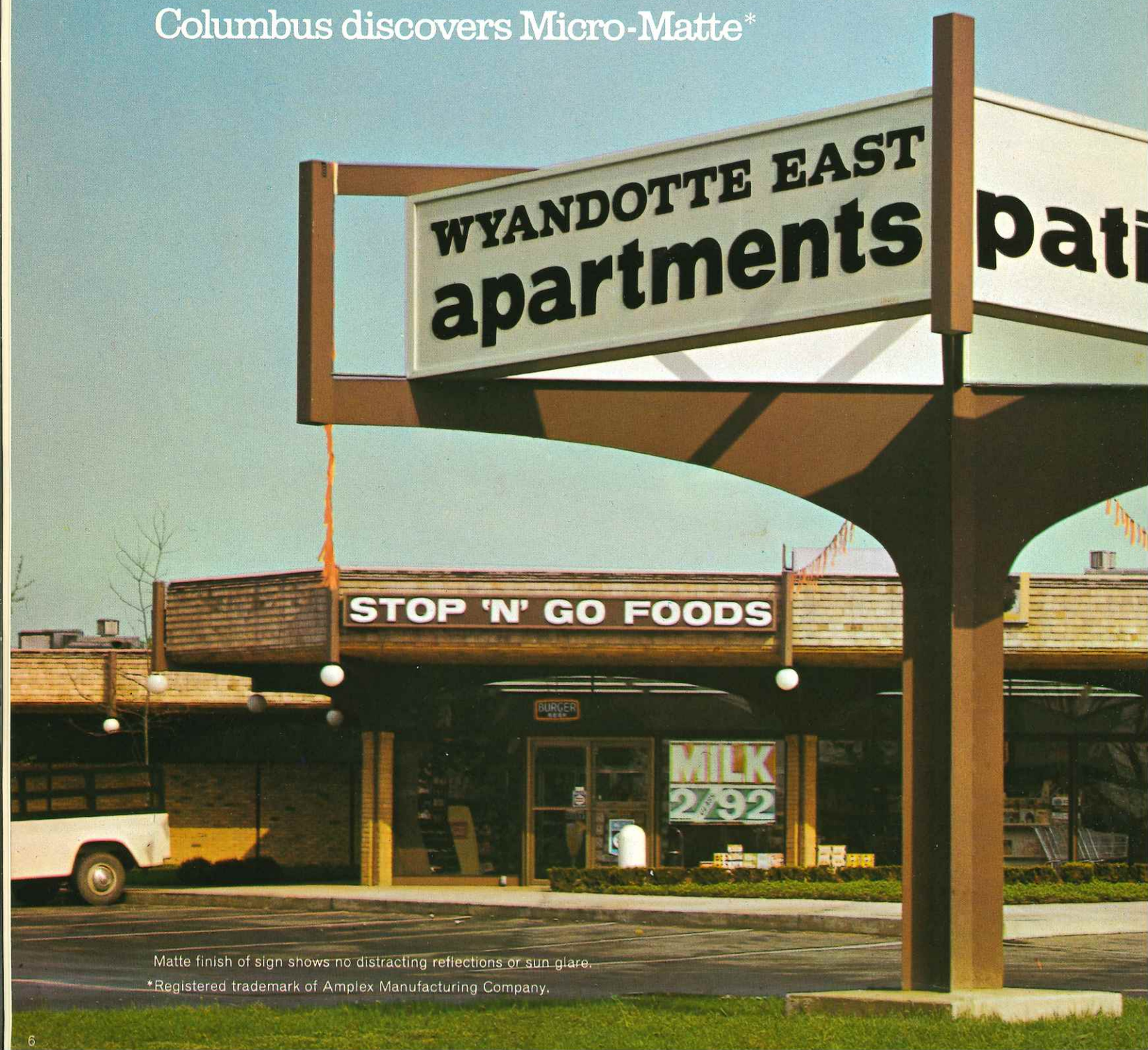
The "Patioshops," an integral part of Wyandotte East Apartments, is a contemporary design employing a balanced use of materials: cedar shingles, brick and exposed structural steel, which takes the form of a "tree." It follows that the graphics should reflect an architectural relationship, also.

Mr. Schottenstein, working with John Castle, an industrial designer with Ireland and Associates/ Architects & Planners of Columbus, Ohio, developed the graphic program for the "Patioshops." Mr. Castle, with the assistance of Artglo Sign Co. of Columbus, Ohio, developed a sign that went beyond Schottenstein's hopes.

"Beautiful . . . Nicely designed . . . Good taste . . . Neat," are some of the comments related to Mr. Schottenstein after the sign was up. "I think it's unusual, and it attracts lots of attention, even though there are many other signs in the area and most of them are plastic," he remarks.

The sign relates well with the shopping center. The supporting structural steel "tree" is the same as those used in the "Patioshops," providing an architectural continuity not often found in shopping centers.

"The same graphic relationship was used all through the shopping center," explains Mr. Castle. "Other signs in the center are of the same material and graphics."



Matte finish of sign shows no distracting reflections or sun glare.

*Registered trademark of Amplex Manufacturing Company.

The sign face and the letters are made from "Micro-Matte" sheet extruded from Du Pont LUCITE 148 acrylic resin by Amplex Manufacturing Company.

This material was recommended by the sign fabricator, Artglo Sign Company, the first user of Micro-Matte in the central Ohio area.

"The matte finish of Micro-Matte is the key to the whole thing as far as I am concerned," comments Artglo V.P., Dale Beavers. "It relates well to the architecture and gives a softer appearance not usually found in plastic signs."

The four-sided sign is 15 feet high and is supported by a steel "tree" framework. Each side of the sign is three feet high and 12 feet long, without seams. The background is Micro-Matte white and lettering is Micro-Matte black. The supporting structural steel "tree" has a flat, dark brown texture.

Mr. Castle is enthusiastic about the matte finish of the sign. "To the man on the street, Micro-Matte does not look like plastic, it doesn't reflect and has a smooth, even surface. Most complaints about plastic are that it looks cheap. This sign doesn't look cheap."

The owner, Mr. Schottenstein, does not know how long the sign can go without maintenance but says, "We haven't cleaned it since its installation eight months ago."

As far as Mr. Schottenstein is concerned, the biggest advantage of his four-sided sign is that "It's unusual but unobtrusive yet still attracts attention."

CREDITS Wyandotte Shopping Center, Columbus, Ohio • Architects: Ireland and Associates, Columbus, Ohio • Sign Manufacturer: Artglo Sign Company, Columbus, Ohio • Acrylic sheet extruded from LUCITE by: Amplex Manufacturing Co., Philadelphia, Pennsylvania

pure water for M.U.D.

The Metropolitan Utilities District (MUD) of Omaha, Nebraska, must supply pure water for the more than 350,000 residents of Greater Omaha.

The recently constructed Platte River Water Treatment Plant will add capacity for the rapidly growing area, which, until now, has been served only by the MUD's Florence plant, treating water from the Missouri River.

The new plant, rather than treating water drawn directly from the Platte River, draws water from 37 wells drilled along the course of the river. All the purification equipment for the 60-million gallon per day plant is housed in the plant building itself. This equipment includes six solids contact upflow units, chemical feeding equipment and storage bins, eight high rate sand filters, and a high service pump station with four 15-million gallon a day capacity pumps.

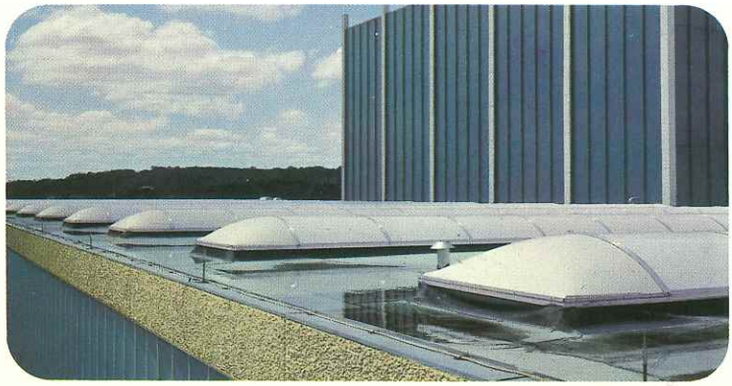
The $8 million plant was designed by Henningson, Durham & Richardson of Omaha in a joint venture with Kirkham Michael & Associates, also of Omaha. Henningson, Durham & Richardson was the project sponsor.

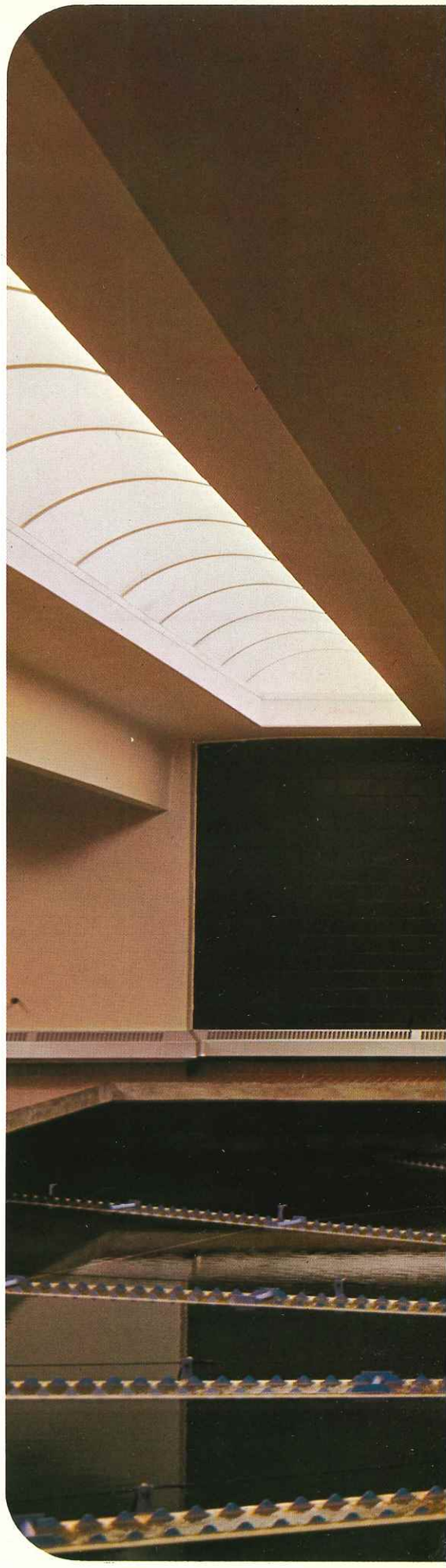
The architects chose Naturalite skylights glazed with sheet cast from Du Pont LUCITE® acrylic monomer after careful investigation of incandescent and fluorescent systems for the work areas.

Although light, like water occurs freely in nature, like water it takes the proper equipment and engineering skills to utilize it properly.

Before making their proposal, Naturalite engineers determined minimum sky conditions, the frequency with which they

Exterior view of skylights on roof at Platte River Plant shows translucent white acrylic.





Skylights provide adequate and well-distributed light in upflow room.

occurred, visual task requirements in the area and the current illuminating Engineering Society recommendation for footcandle levels on the task. Coordinating these data with room dimensions and surface reflectance values, they determined size, configuration and number of skylights.

To provide the 50 footcandles required under minimum sky conditions of 2,500 footcandles on the plane of the roof, Naturalite recommended 24 units 5′-8″ x 82′-0″ and 8 units 5′-8″ x 90′-8″. The double dome, continuous vaulted skylights were glazed with medium transmitting translucent white Evr•Kleer* acrylic sheet cast from LUCITE. Solar heat gain for each 82′ unit would be 11,200 BTU/hour, less heat than that from comparable illumination by an incandescent or fluorescent system.

The architects accepted the recommendations, and Nebraska Sheet Metal and Roofing Company installed the units.

DESIGN DATA

SKY CONDITIONS—Minimum available natural light (total cloud cover) occurs approximately 31% of the time. Total light intensity on the roof plane is 2,500 footcandles.

Average available natural light (less than 70% cloud cover) or higher, will occur approximately 33% of the time. Total light intensity on the roof plane is 5,000 footcandles.

Maximum available natural light (clear sky, direct sunlight) will occur approximately 36% of the time. Total light intensity on the roof plane is 10,000 footcandles.

ROOM SURFACE REFLECTANCE VALUES CEILING: 80% WALLS: 50% FLOORS: 30%

ROOM DIMENSIONS LENGTH: 273′ 182′ WIDTH: 90′ 100′ CEILING HEIGHT: 35′ 35′

LIGHTING REQUIREMENTS—Based upon visual task requirements for the area, the following is the current illuminating Engineering Society recommendation for the footcandle level on the task.

AREA—Upflow Room or Filter Room FOOTCANDLE LEVEL—50 F.C.

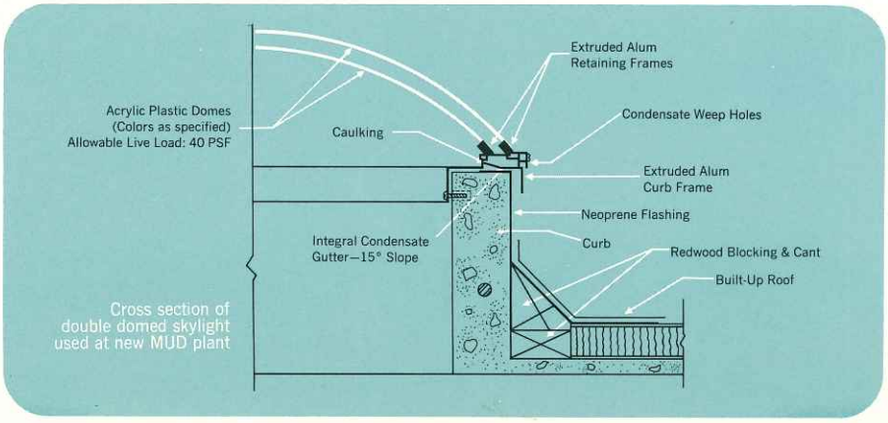
DAYLIGHTING RESULTS

	Skylights		Average Daylighting Levels (Footcandles)			
Area	Stock No.	Dome Matl.	Quan.	Min. Sky F.C.	Mean Sky F.C.	Max. Sky F.C.
(2)Upflow Rooms	CVDD 5′-8″x82′	LT/HT	24	50	100	200
(1)Filter Room	CVDD 5′-8″x90′-8″	LT/HT	8	50	100	200

SOLAR HEAT GAIN—The below listed solar heat gain calculations are based on a clear day, August 1 at 12 o'clock noon.

Total Solar Heat Gain Per Each 5′-8″ x 82′ Skylight = 11,200 BTU/HR. "U" Factor For Each Unit: U = .536.

*Evr•Kleer trademark of Cast Optics, Hackensack, N. J.



Mobil goes Molded

There's an even neater, crisper look at Mobil service stations these days than when its new signing program was begun about three years ago.

At that time, Mobil went modern. They adopted a new identification sign with just the trademark Mobil in a red and blue modern type-face replacing the old Mobil Emblem sign of more than 10 years standing. They restyled their stations and among other changes was the addition of a blue panel above the office and service-bay windows, and the addition of "Mobil Service" over the service bays in letters formed from cast acrylic sheet. Pegasus—the Flying Red Horse, was not on the new sign, but was soon back in a slightly different "role." About two years ago, Mobil started using Pegasus on a cast acrylic white internally lighted disc facing either right or left, prominently displayed on its new service station buildings and on many other Mobil facilities.

At about the same time, Mobil found it possible to get its new type style red and blue letters of its trademark produced by the injection molded process of a size large enough to use on station fronts. The M is 15½ inches high and 1 inch thick. These letters molded from LUCITE offer several advantages such as long life and uniformity of color. The injection molding process produces absolutely uniform letters with integrally molded mounting lugs. This uniformity permits mounting bolts to be quickly placed in the station building front using a standard template without chance of error.

The appearance of the letters, too, is much improved. The acrylic letters are molded in two parts. The main part consists of a white body and edge with a raised rim to accept the flat, molded color insert. The finished letters are particularly sharp and clean in appearance with a stylish flat face outlined and accented by the white section which preserves a three-dimensional appearance without blurring when viewed from an angle.

Although the Mobil marketing force is always alert to further possible improvements, the new stations seem to have everything with the return of the Flying Red Horse and the new molded letters, both using LUCITE.

Front and back view of the letters shows the exceptionally clean lines and the integral mounting lugs which fit fasteners driven into the station face.

Mobil's new molded letters of LUCITE add a modern look to the service bay. Pegasus, on a shield of LUCITE, is sure to be long lasting.

COVER: The cover shows an interior view of the lobby of the Instrument Products Building glazed with sheet made of LUCITE®. "One Story by day . . . Another Story at night" begins on page 4.

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